



Recent range expansion of the red-tide dinoflagellate *Noctiluca scintillans* in Australian coastal waters

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Abstract:

The large (200–1000 µm diameter) phagotrophic dinoflagellate *Noctiluca scintillans* has long been present in Australian New South Wales coastal waters, with the first report of bioluminescence in Sydney Harbour (34°S) dating back to 1860. Dakin and Colefax 1933 observed this species to be a minor component of the phytoplankton of New South Wales coastal waters and Wood 1954 in his extensive Australia-wide net phytoplankton surveys reported this taxon to occur only in Australian east coast estuaries. The first visible *Noctiluca* “red tide” event was not reported until August 1982 in Lake Macquarie, central New South Wales. However, from a rare bloom former in the 1980s, starting in 1993 this organism has developed into one of the most prominent red-tide organisms in Sydney coastal waters, soon after the commissioning of 3 deepwater ocean sewage outfalls off Australia’s largest coastal city.

Source: [http://hab.ioc-unesco.org/index.php?option= Euro Surveillance \(Bulletin European Sur Les Maladies Transmissibles; European Communicable Disease Bulletin\)com_oe&task=Euro Surveillance \(Bulletin European Sur Les Maladies Transmissibles; European Communicable Disease Bulletin\)viewDocumentRecord&docID=Euro Surveillance \(Bulletin European Sur Les Maladies Transmissibles; European Communicable Disease Bulletin\)3064](http://hab.ioc-unesco.org/index.php?option= Euro Surveillance (Bulletin European Sur Les Maladies Transmissibles; European Communicable Disease Bulletin)com_oe&task=Euro Surveillance (Bulletin European Sur Les Maladies Transmissibles; European Communicable Disease Bulletin)viewDocumentRecord&docID=Euro Surveillance (Bulletin European Sur Les Maladies Transmissibles; European Communicable Disease Bulletin)3064)

Resource Description

Exposure :

weather or climate related pathway by which climate change affects health

Food/Water Quality

Food/Water Quality: Biotoxin/Algal Bloom

Geographic Feature:

resource focuses on specific type of geography

Ocean/Coastal

Geographic Location:

resource focuses on specific location

Non-United States

Climate Change and Human Health Literature Portal

Non-United States: Australasia

Health Impact:

specification of health effect or disease related to climate change exposure

Health Outcome Unspecified

Resource Type:

format or standard characteristic of resource

Review

Timescale:

time period studied

Time Scale Unspecified